State of Wisconsin

Injury Control-Emergency Medical Response

2004

WISCONSIN DEPARTMENT OF TRANSPORTATION

Program 04-06
INJURY CONTROL -- EMERGENCY MEDICAL RESPONSE

I. GOALS and OBJECTIVES

A. Goal

To improve traffic crash survivability and injury outcome by improving the availability, timeliness and quality of EMS response and by improving State and community coordination of EMS, public safety and mass casualty response.

B. Objectives

Objective 1: To improve coordination of statewide EMS and injury control activities, and to distribute EMS and highway safety resources to areas with worst injury-to-death ratios, greatest disproportion of deaths and incapacitating injuries and lowest seat belt use.

Performance Measure: Compliance with NHTSA Assessment standards, and demonstrated distribution of funds to areas of highest need.

Baseline: In CY 1994, no statewide Trauma System existed. 1990 NHTSA EMS Assessment recommendations were being addressed by the Departments of Health and Family Services and DOT, and by the EMS Advisory Board. State average Injury-to-Death ratio was 94.1.

Status: In CY 2002, EMS Advisory Board met bi-monthly; State Trauma System development continued without a funding source, First Responder grants to communities meeting selection criteria. State average Injury to Death ratio was 71.8.

Objective 2: To improve ambulance run data capture and develop analyses useful for highway safety improvements.

Performance Measure: The completeness and accuracy of EMS reporting of MV Crash responses to the state. The usefulness of reports derived from these data.

Baseline: In CY 1994, ambulance run reporting was not automated statewide, no state requirement existed for providing reports to the state agency responsible for EMS, and no summary reports were generated.

Status: In CY 2000, the WEMSIS automated ambulance run system was operational and receiving the first approximately 5,000 voluntary reports from ambulance companies; however, there is still no requirement for reporting to the state agency. The State EMS Board discarded the WEMSIS system without plan for replacing it. With the requirement of Cellular 9-1-1 service, dispatch centers will have to develop geo-coding and this may serve to integrate EMS dispatch in coordinated public safety dispatch centers, providing a better level of service.

C. Related State and National Goals

National priorities for EMS will stress integration of routine EMS response capacity with terrorism readiness resources, increased collaboration and cooperation with the State Highway Safety Office and other interested parties.

National priorities for funding include improvements in surveillance and data collection, emergency communications, trauma system development, and rural EMS.

During FY2004, the national program will continue to focus on the strategic plan laid out in the 1996 *EMS Agenda for the Future*, encouraging EMS professionals to conduct community injury prevention activities, and pursuing the vision of the April 2002 *Trauma System Agenda for the*

Future.

II. FUNDS

INJURY CONTROL - EMERGENCY RESPONSE 06						
Activity	**Title**	**Fed**	**State**	**Local**	**Tot Prog**	**Loc Benefit**
03-06-01	PI&E	50,000	10,000	10,000	70,000	25,000
03-06-02	First Responder Train	30,000	2,000	20,000	52,000	15,000
	ALERT Training	10,000	2,000	15,000	27,000	5,000
	EMS Communicator Trn	10,000	30,000	15,000	55,000	5,000
03-06-03	Community Programs	10,000	2,000	15,000	27,000	10,000
03-06-04	Ambulance Inspection	5,000	5,000	2,000	12,000	1,250
402 TOTAL	**(EM)**	115,000	51,000	77,000	243,000	61,250

III. PROBLEM IDENTIFICATION and PROGRAM JUSTIFICATION

EMS is a vital public service, a system of care for victims of sudden and serious illness or injury. This system depends on the availability and coordination of many elements, ranging from an informed public capable of recognizing medical emergencies to a network of trauma centers capable of providing highly specialized care to the most seriously ill or injured. The 9-1-1 emergency number, search and rescue teams, and well-trained and equipped pre-hospital and emergency department personnel are some critical elements of an EMS system.

The public does not seem to be aware of the largely volunteer and often unpaid nature of the state's EMS and trauma systems. In a 2002 telephone survey of 750 licensed drivers, almost 60% of respondents thought that their local emergency medical services would arrive less than 10 minutes after being called, even though the response time for much of rural WI is considerably longer than that.

A. Need for Quality Emergency Medical Response to Crashes

In April 2001, the NHTSA Reassessment Program assisted Wisconsin in measuring its progress since the state's 1990 EMS assessment. The Reassessment Program followed the same process and the same ten component areas as the original 1990 assessment. However, the assessment standards were updated to reflect current EMS philosophy and to allow for the evolution into a comprehensive and integrated health management system, as identified in the 1996 *EMS Agenda for the Future (NHTSA, 1998)*. The Technical Assistance Team was impressed by the great progress made since 1990 and also by the unusual dedication of Wisconsin EMS professionals and volunteers, but noted that funding and personnel at the state level were still not secure.

In 2001, the General Accounting Office cited in its report, "Emergency Medical Response: Reported Needs are Wide-Ranging, With Lack of Data a Growing Concern," the lack of coordination of EMS activities that has resulted in unmet needs for personnel, training, and equipment in local and state EMS Systems.

In the aftermath of September 11, improvements in funding, coordination and collaboration of "first responders," including police, fire and EMS as well as local communications systems and medical facilities, became a top national priority. Nationally, coordination has been slow in coming and at the state level, multiple committees, task forces and agency groups have been convened, but state policies and plans are not yet available. Preparation for response to bioterrorism, terrorism and mass casualty events as well as normal ambulance run business is likely to increase the responsibility of local ambulance and health care providers. Funding for them has been piecemeal.

The Wisconsin Legislature approved the State Trauma Plan, but as yet has provided no stable source of funding. Most EMS functions do not have stable funding in this state. The State Trauma Advisory Committee is continuing its development of the trauma system through a series of Regional Trauma Advisory Councils (RTACs). These RTACs are intended to be the focus of trauma system development, with local providers coordinating their activities within the state Trauma System framework.

B. Risk Factors for Poor Outcomes from Crash-Related Injury

Non-qualified dispatch

Not all Emergency Medical Communicators (EMC) in Wisconsin have received appropriate EMS dispatch training. One of the major barriers is providing time for EMC's to attend training. Legislation is also being pursued to require certification and standardized training of Emergency Medical Communicators.

Access to appropriate level of care

Rural areas do not have the same level of care available as do the large metropolitan areas. Paramedic units tend to be in the metropolitan areas. The two Level I trauma centers in WI are located in Madison and Milwaukee, and crash victims from the western part of the state are often transported to Minnesota trauma centers.

Timeliness of Response

Response time to scene and transport times to hospitals are longer in rural areas. The great variety of Injury-to-death ratios in Wisconsin may reflect long response times, distance to appropriate trauma centers, as well as the nature of crashes on rural two-lane roads. See Map 06-01 for Injury to Death Ratios by County.

Overlapping responsibilities

The public health, Injury Prevention and Highway Safety communities have areas of overlapping responsibility, but so far no institutionalized means of coordinating resources and eliminating duplication of effort has been possible. Motor vehicle injury has been recognized as one of three top injury issues to be addressed in the *Turning Point Public Health Plan for the Year 2010*. Whether the public health community will reach out to the public safety and highway safety professionals under this plan remains to be seen.

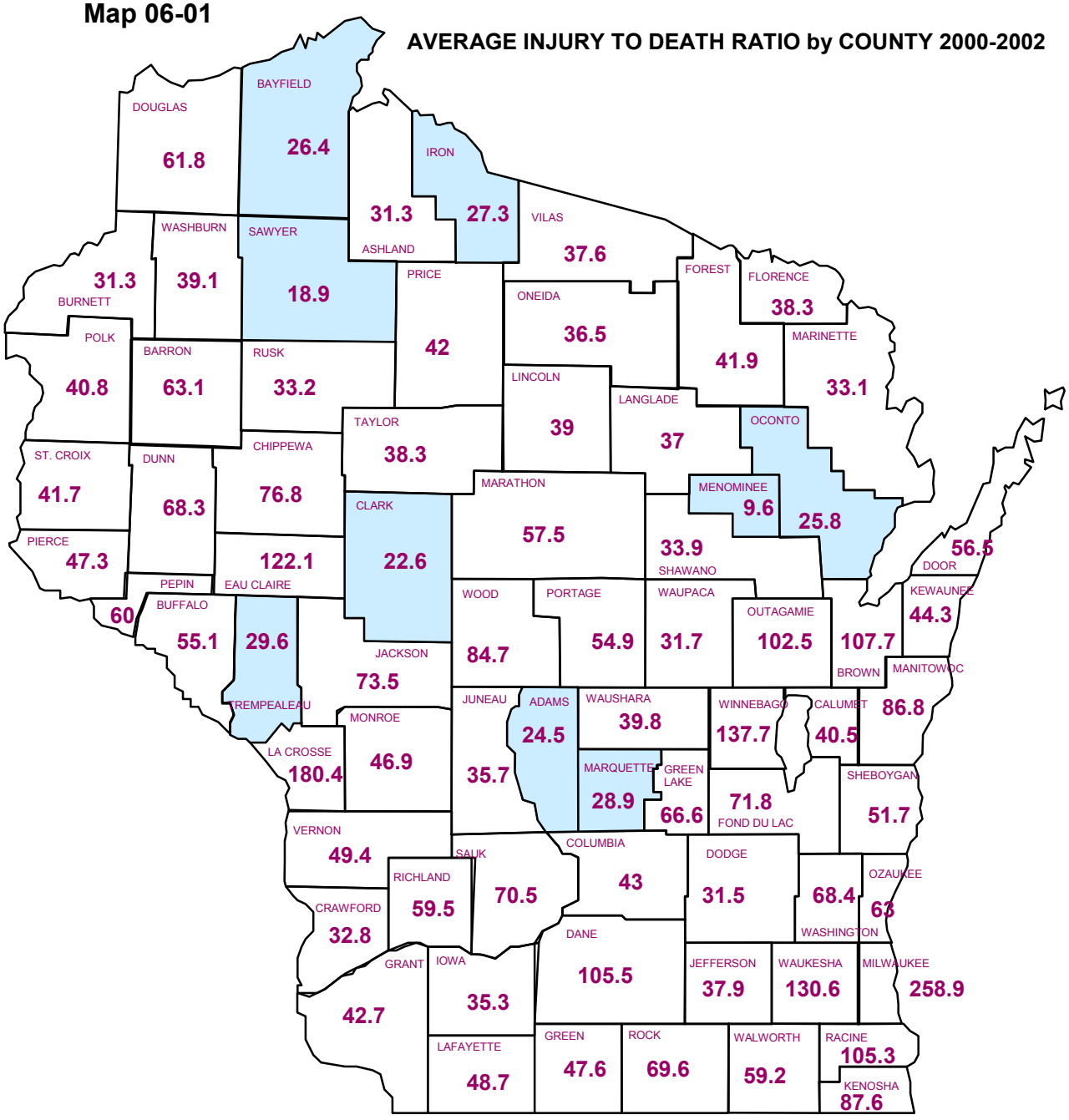
Retention of volunteers

Eighty percent of Wisconsin's 16,000 EMT's are volunteers. There are 425 ambulance providers in Wisconsin and at least half of them need more volunteers. Wisconsin communities are struggling to have two or more people on call at all times because most people do not know that there is a

shortage of EMT's, the average person does not think he can handle the work, and people are not volunteering as much as in the past. Also, the many small-town and rural volunteer services are generally at the EMT-Basic level and do not have the funds or available time to pay for trauma skill training and refresher training.

Map 06-01

AVERAGE INJURY TO DEATH RATIO by COUNTY 2000-2002



Shaded Counties are at death per every 30 injuries or worse ratios

State Average Injury to Death Ratio
2002 = 71.8
2000-2002 = 75.9

Source: WisDOT Crash Database

IV. STRATEGIES FOR DECREASING DEATHS & INJURIES

A. 2001 EMS Assessment Recommendations

Wisconsin's 2001 NHTSA EMS Reassessment made the following recommendations for the State of Wisconsin. The Bureau of EMS and Injury Prevention (BEMSIP) was recognized as the state's lead agency for EMS. Working with BEMSIP and the State EMS Advisory Board and EMS for Children Board, BOTS has selected those recommendations that are most transportation safety-related to include in the Highway Safety Plan.

A. Regulation and Policy The State of Wisconsin should assure an adequate, stable and ongoing source of funding and personnel resources for the Bureau of EMS and Injury Prevention. Examples from other states include an assessment on motor vehicle registration, a fee on driver's licenses, an assessment on moving traffic violations and a variety of others.

B. Resource Management Secure stable funding sources to ensure adequate staffing for resource management activities including, but not limited to: Technical Assistance; Data Support, Collection, and Analysis; First Responder Certification; Dispatch/Communication Program

- Integrate EMS, public safety, public health and Safe Communities
- Coordinate public health, public safety and mass casualty planning and activities
- Coordinate public health and safety data and communications through integrated, geo-located public safety data/communications systems.

C. Human Resources and Training No progress has been made in implementing standardized training, licensure, and certification of Emergency Medical Dispatchers. Evaluate the compliance of the Wisconsin EMS education system with the *EMS Education Agenda for the Future* and make specific recommendations to ensure that the Wisconsin EMS education system is consistent**.**

- Train and equip First Responder groups in high motor vehicle crash risk locations.
- Provide skills development for dealing with crash scenes and crash-related injuries, and skills development for crash injury prevention activities.
- Train Emergency Medical Communicators via distance learning to reach more people who do not have the time or resources for long-distance travel.

D. Transportation Obtain legislative authority to establish comprehensive regulations for air, water and ground EMS services. ` Support the proposed rule allowing one EMT-Paramedic per EMT-Paramedic ambulance.

E. Facilities Initiate a process to document what is already known about the capabilities of all hospitals that interface with Wisconsin EMS.

F. Communications Pursue statutory training and licensure standards for EMS dispatchers and dispatch centers to include funding for program support and personnel.

G. Trauma Systems Identify or develop and fund an acceptable and consistent statewide trauma systems registry. Continue to pursue dedicated funding for implementation and operation of the trauma system.

H. Public Information and Education The Bureau of EMS and Injury Prevention should develop a broad-based public information and education plan that targets, in part, policy makers and the general public. Among other topics, this should address emergency medical services and trauma systems.

- Develop, purchase and/or duplicate EMS-focused information or motivation materials that have a highway safety focus
- Support small EMS-directed crash injury control activities in identified Safe Communities

J. Evaluation Seek the authority for the Bureau of EMS and Injury Prevention to mandate that EMS provider agencies submit specific data elements to a central repository. Conduct a NHTSA Leadership Workshop for Quality Improvement. Develop and adequately fund the position of EMS data manager and technical consultant within the Bureau of EMS and Injury Prevention. Develop an EMS database and an internet-based EMS patient care report that would automatically populate it. Provide summary feedback information, derived from submitted data, in a predictable periodic manner to the state's EMS provider agencies.

- Automate the collection of ambulance inspection data and support free flow of information between the Wisconsin State Patrol and BEMSIP
- Encourage geo-location of EMS response and other trauma-related activities, integrated with other public safety data capture (see Traffic Records Section of this Plan)

B. Project Selection Criteria

First Responder Training & Equipment Projects: Priority will be given to communities with:

(1) disproportionate number of crashes, injuries and fatalities (see County Data Tables Intro-00-16 and 00-17, County Death and Incapacitating Injury Map 00-01);
(2) low injury-to-death ratios (see Injury-to-Death Ratio Map 06-01);
(3) long response time for ambulance service; and
(4) documented relationship with an ambulance provider and town or village.

Safe Community EMS Projects: Priority will be given to communities with:

(1) an identified and established Safe Community Coalition;
(2) documented crashes, injuries and fatalities, low belt use or high improper child safety seat use or low injury-to-death ratio supported by local data; and
(3) a new project (previously funded projects not eligible).

V. ACTIVITIES and ESTIMATED FUNDING, by STRATEGY

STRATEGY -- EDUCATION -- PUBLIC INFORMATION & EDUCATION

Activity: 04-06-01-EM EMS PUBLIC INFORMATION AND EDUCATION

Problem: EMS Providers do not have the budgets to develop and reproduce highway safety related EMS public information materials. They are a resource to distribute and provide the education in their local communities and are willing to be involved in the development of new materials. These materials can be distributed electronically, via e-mail and Internet sources, locally in coordination with Safe Communities activities and through EMS professional organizations.

Objectives: 1. To incorporate PI&E into EMS programming in accord with a long-range PI&E plan.
2. To develop new EMS related injury control/Safe Communities materials.
3. To reach 25% of the target audiences with appropriate messages and change the behavior of 25% of them.

Resources: $50,000 for development, printing, reproduction, and distribution of materials.

Self-sufficiency: Communities will be expected to pay for reproduction of state-produced materials. Distribution using Internet and EMS professional groups.

Evaluation: BOTS PI&E Evaluation Administrative- number of persons receiving messages. Impact: survey changes in KAB.

Activity: 04-06-02-EM FIRST RESPONDER EQUIPMENT & TRAINING

Problem: EMS response times for an ambulance in rural WI can be anywhere from 10-30 minutes. Transport times to a hospital can even be longer, depending upon the location of the call for service. These longer a patient has to wait for medical personnel to arrive the worse the medical outcome.

Objectives: 1. Provide initial training for at least 20-30 individuals belonging to qualified First Responder organizations.
2. Provide startup equipment kits for at least 25 qualified First Responders.

Resources: $30,000 for training and equipment.

Self-sufficiency: One-time funding. First Responder organizations will be required to provide continuing education and to replace equipment. EMS organizations will seek state funding.

Evaluation: Administrative evaluation. Activity Reports by First Responder organization.

ACTIVITY: Airbag Lifesaving Education and Restraint Training (ALERT)

Problem: Motor vehicles are being equipped with a huge variety of driver, passenger and side airbags. While they offer protection to the occupants, undeployed airbags in unknown locations can be dangerous for EMS, Fire rescue and law enforcement personnel who respond to the scene of a crash.

Objective: Provide training to 200-300 EMS, fire rescue and law enforcement personnel on potential hazards and correct procedures when undeployed airbags are suspected at crash scenes.

Resources: $ 10,000 for travel, lodging, meals, instructor fees, participant materials and airbags.

Self-sufficiency: Attendees pay their own expenses to attend this training and use and pass on what they learn.

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Evaluation: Administrative – pre/post test of knowledge of participants before and after training.

ACTIVITY: EMS Communicator Training

Problem: Not all 911 Communicators have received EMS specific training although it is a large part of their duties. Also ongoing EMS training for Communicators is not readily available, some agencies do not have the staff to allow them to travel to receive training. The NHTSA Reassessment recommends training for EMS Communicators.

Objective: Develop and pilot different types (video based, on-line, etc) of EMS Communicator training to allow various avenues for receiving EMS specific training.

Resources: $10,000 for curriculum development, materials, travel expenses, meals, lodging for testing of training.

Self-sufficiency: Bureau of EMS will contribute to development and provide the necessary access and will take over responsibility for updates.

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Evaluation: Administrative – Number of participants trained and knowledge of EMS pre/post training.

STRATEGY -- EMPOWERMENT –Community Programs

Activity: 04-06-03-EM COMMUNITY PROGRAMS - SAFE COMMUNITY EMS ACTIVITIES

Problem: Community members must collaborate to prevent injuries effectively. Community coalitions of public safety and health professionals, engineers and planners, private citizens and advocacy groups, and business, education and faith leaders can combine resources to implement programs that will be successful in changing public knowledge, attitudes and behaviors. Communities must do or have done a local Traffic Safety Assessment. EMS Providers must be involved in the Coalition and must lead the EMS project.

Objective: Provide funding for 8-12 innovative EMS-related activities to decrease traffic-related deaths and injuries integrated with other Safe Community activities.

Resources: $10,000 for grants to 8-12 communities. Funds may be used for coordination, training, local materials development.

Self-sufficiency: Communities will maintain their collaborative efforts in a continued Safe Communities concept.

Evaluation: Administrative evaluation of planned activities. Effectiveness evaluation of programs implemented by Coalition through surveys or other “collect measures.”

STRATEGY -- EVALUATION – Data Improvements

ACTIVITY: Access to EMS Ambulance Records for Ambulance Inspector

Problem: WisDOT Division of State Patrol does inspection of all ambulances statewide. This often causes problems with EMS Providers, as DHFS-BEMS & IP is the regulating body for EMS. All Provider records are housed in DHFS in the EMS database.

Objective: Provide DSP Ambulance Inspector direct access to DHFS ambulance records in the EMS data base.

Resources: $5,000 for software and programming to allow WSP access to BEMSIP ambulance records.

Self-sufficiency: Bureau of EMS will contribute to development and provide the necessary access and will take responsibility for updates.

Evaluation: Administrative – if access to EMS database provides necessary documentation for ambulance inspector.